

**DETAILED ACTION**

1. The amendment filed on June 29, 2009 has been entered. Accordingly:
  - Claim 14 has been amended; Claims 1 and 4 have been canceled; and new claims 15-21 been added.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15, "the size pf the scattered bodies has a narrow distribution function" is not recited in definite manner. The recited "a narrow distribution function" has to be described in the specification, and based on the specification, the recited limitation needs to be defined in the body of the claim.

Neither specification nor any of the figures illustrate or describes any of the distribution functions applied to the distribution of the scattered bodies embedded in the light-diffusive film.

As each of claims 16-18 includes similar deficiencies as indicated for claim 15. Therefore, Claims 16-18 are also rejected.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3 and 5-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 2,693,656 (E. A. Neugass) in view of US Patent No. 6,111,699 (Iwata et al.).

**Regarding claims 14 and 17,** E. A. Neugass discloses a rear illuminable information unit 17 (Figures 1, 3 and 4) comprising:

- a transparent plastic housing 21 including a front surface- the surface bearing element 19- and a rear surface illuminable by light surface (Figures 1, 3 and 4; column 3, lines 37-42); and a plurality of white pigment particles – light reflective particles - embedded in the transparent housing (Figures 1, 3 and 4; column 3, lines 76-85; and column 4, lines 1-8).

As discussed above, E. A. Neugass teaches white pigment particles – reflective particles- being embedded within the transparent plastic housing instead of the embedded particles being transparent – refractive particles- as claimed by the applicant.

On the other hand, Iwata et al. discloses a liquid crystal display combined with a light-diffusive film, and the light-diffusive film further comprising:

A plurality of light-transmitting, light-scattering bodies 14 embedded in a housing 16 – a resin medium- with multi-modal distribution, herewith broadly interpreted as random distribution (Figures 1 and 14); the portion by weight of the scattered bodies 14 is less than or equal to 0.1% and the size of the scattered bodies is less than or equal to 0.5 µm (Figures 1 and 14, column 8, lines 39, 40 and 62-67). The above ranges for size and weight ration taught by Iwata et al. do not meet the respective ranges claimed by the Applicant.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminated information unit of E. A. Neugass by providing the light diffusive film with optimized ranges as claimed by the applicant, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only ordinary skill in the art. *In re Aller*, 105 USPQ 233.

Further it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2nd 272, 205 USPQ 215 (CCPA 1980).

**Regarding claims 14 and 13**, E. A. Neugass in view of Iwata et al. discloses the illuminated information unit further including:

- an opaque cover layer 19 disposed on the front surface of the housing 21 (E. A. Neugass, Figures 1, 3 and 4, column 3, lines 33-37); the opaque cover 19 including a plurality of recesses 20 (E. A. Neugass, Figures 1, 3 and 4, column 3, lines 33-37); the recesses in the opaque cover

arrangeable for a warning sign exhibition (E. A. Neugass, Figures 1, 3 and 4, column 3, lines 33-37).

**Regarding claim 2,** neither in combination or individually E. A. Neugass and Iwata et al. specifically teaches the housing or the embedded particles transparently colored.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminated information unit of E. A. Neugass in view of Iwata et al. by providing transparently colored embedded particles or transparently colored body, since it has been held that matters relating to ornamentation only which has no mechanical function cannot be relied upon to patentably distinguish the claimed invention over prior art.

**Regarding claim 3,** E. A. Neugass and Iwata et al. specifically teaches the transparent housing including a flame proof polycarbonate material.

On the other hand, Iwata et al. discloses the light-diffusive film made of polycarbonate material (Figures 1 and 14, column 6, lines 50-58). However, neither in combination nor individually E. A. Neugass and Iwata et al. specifically teach the light-diffusive body made of fire proof polycarbonate material.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminated information unit of E. A. Neugass in view of Iwata et al. by providing the housing made of a high Fire proof polycarbonate material, since it has been held selection of a prior art material on the basis of its suitability for its intended purpose is within the level of ordinary skill. *In re Leshing*, 125 USPQ 416

(CCPA 1960) and *Sinclair & Carroll Co. v. Interchemical Corp.*, 65 USPQ 297 (1945).

**Regarding claim 5,** E. A. Neugass in view of Iwata et al. discloses the illuminated information unit including the opaque cover layer 19 including recesses 20 (E. A. Neugass, Figures 1, 3 and 4, column 3, lines 33-37); the recesses 20 allowing parts of the housing 21 provided with the covered layer 19 (E. A. Neugass, Figures 1, 3 and 4, column 3, lines 33-37).

**Regarding claim 6,** neither in combination or individually E. A. Neugass and Iwata et al. specifically teaches the cover layer having a bright color.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminated information unit of E. A. Neugass in view of Iwata et al. by providing the covered layer covered with a bright color, since it has been held that matters relating to ornamentation only which has no mechanical function cannot be relied upon to patentably distinguish the claimed invention over prior art.

**Regarding claim 7,** E. A. Neugass in view of Iwata et al. discloses the illuminated information unit including the cover plate meeting the limitation in the manner as that applied to claim 6 discussed above.

**Regarding claim 8,** E. A. Neugass in view of Iwata et al. discloses the illuminated information unit including the plastic housing 21 integral- mechanically or chemically held together- with the operating element 17 - broadly interpreted as the illumination information assembly 17 (E. A. Neugass, Figures 1, 3 and 4)

**Regarding claims 9-11,** each claim contains a recitation with respect to the manner in which a claimed apparatus in intended to be employed does not differentiate

the claimed apparatus from the prior art ,E. A. Neugass in view of Iwata et al., apparatus, as the prior art apparatus teaches all the structural limitations of the claim.

**Regarding claim 12**, E. A. Neugass in view of Iwata et al. discloses the illuminated information unit including a cover 18 with vertical walls together having a three-dimensional surface structure (E. A. Neugass, Figures 1, 3 and 4, column 3, line 33-37).

**As best understood, regarding claims 15-18**, E. A. Neugass in view of Iwata et al. discloses the illuminated information unit meeting the limitations in similar manner as that applied to claims 14 and 17 discussed above.

**Regarding claim 19**, lines 3-8, the functional recitation " wherein on account of diffused light radiation ..... 45<sup>0</sup> to the optical axis" has not been given patentable weight because it is a narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specific function, and must be supported by the recitation in the claim of sufficient structure to warrant the presence of the functional language. What means- and or arrangement respect to other claimed structural element- makes the view angle approximately 45<sup>0</sup> respective to the optical axis?

**As best understood, regarding claims 20 and 21**, E. A. Neugass in view of Iwata et al. discloses the illuminated information unit meeting the limitations in similar manner as that applied to claims 14, 15 and 19 discussed above.

***Response to Amendment***

6. Applicant's arguments filed on October 27, 2008 with respect to the 35 U.S.C. 102(b) rejections of claims 1, 2 and 5-13; and 35 U.S.C. 103(a) rejections of claim 5 have been fully considered but are moot in view of the new ground(s) of rejections necessitated by the amendment.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S. Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 8:00 AM - 4:30 PM30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jong-Suk (James) Lee can be reached on 571 272 7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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